

NOTES ON NORTH AMERICAN TACHINIDÆ, WITH DESCRIPTIONS OF NEW GENERA AND SPECIES.—PAPER VI.*

BY C. H. TYLER TOWNSEND, LAS CRUCES, NEW MEXICO.

This paper contains descriptions entirely of Southern New Mexican forms, with the exception of two from the State of Chihuahua, Mexico.

Sarcomacronychia sarcophagoides, n. sp. ♀.

Eyes brown; frontal vitta narrow, blackish, front one-fourth width of head; sides of front, face and cheeks silvery-white; the double rows of frontal bristles nearly equal; vibrissæ distinct, short, decussate, inserted well above oral margin; antennæ and arista blackish, second antennal joint slightly rufous at ends, third one and a-half times as long as second; proboscis black, labella brown; palpi slender, brown; occiput cinereous, short black-bristly. Thorax, scutellum and abdomen cinereous, more or less faintly brassy, with three blackish vittæ, the middle one continued over scutellum and abdomen, the lateral ones more or less distinct on sides of scutellum and more broadly and irregularly continued on sides of abdomen to anal segment, the abdomen more distinctly brassy or golden, anal segment wholly rufous, deep golden pollinose at base, hind margin of third rufous; humeri and pleuræ silvery-whitish; second segment with a pair of median marginal macrochaetæ, third with a marginal row of twelve or more, anal with about four marginal. Legs black, femora silvery on outside, claws and pulvilli a little elongate, pulvilli whitish. Wings hyaline, veins more or less brownish, tegulæ white; halteres rufous, knobs yellowish.

Length of body, $7\frac{1}{2}$ mm.; of wing, 5 mm.

Described from one specimen; Las Cruces, New Mexico. June 9. This species bears a striking superficial resemblance to one of the smaller *Sarcophagidæ*.

Brachycoma chihuahuensis, n. sp. ♂.

Eyes brown; frontal vitta dark brown; front about one-third width of head, frontal bristles in a single row descending to base of third

* Paper I. was published in Proc. Ent. Soc., Wash., II.; papers II. and III. in Trans. Am. Ent. Soc., XVIII. and XIX.; paper IV. in Ent. News, III.; paper V. in CAN. ENT., XXIV.

antennal joint, no orbital bristles; sides of front, sides of face and occipital orbital margins silvery-white; facial depression and cheeks silvery-gray; cheeks pubescent, facial ridges bare save some weak depressed bristles above vibrissæ; antennæ entirely light rufous, arista brown, third antennal joint hardly twice as long as second, quite peg-shaped; proboscis fleshy, shorter than height of head, blackish, palpi pale rufous; occiput cinereous, gray-hairy. Thorax cinereous, with five black vittæ, the middle one arising at suture, the outer ones rather heavier than the inner pair; scutellum rather silvery, testaceous or tawny at apex. Abdomen shining black, anal segment rather dark rufous, whole abdomen faintly cinereous pollinose. Legs black, claws and pulvilli elongate, pulvilli fuscous. Wings grayish-hyaline, veins tawny; regulæ white, halteres tawny.

Length of body, fully 8 mm. ; of wing, 6 mm.

Described from one specimen; Chihuahua, Mexico. Mex. Cen. R. R., August 4. This specimen apparently shows a very faint rufous tinge on sides of abdomen.

Hypertrophocera parvipes, Twins. Trans. Am. Ent. Soc., XVIII. A specimen taken June 26, Las Cruces, N. M., was damaged by moisture. It shows scutellum and abdomen wholly rufous, except a heavy median black vitta on latter. It measures $6\frac{1}{2}$ mm.

EUCNEPHALIA, n. gen.

Facies of *Cnephalia*, with head (except arista) of *Gonia*. Belongs in *Phoroceratinae*. Head rather quadrilateral in profile. Front (♀) one-half width of head, narrower at vertex, face a little wider; frontal bristles in two rows, descending about to base of third antennal joint, with smaller bristles among them which are continued in broken rows on the wide sides of face and cheeks, as in *Cnephalia*; two orbital bristles (♀). Face nearly perpendicular, epistoma prominent; facial depression a little more than one-third width of face, shallow; facial ridges with bristles more than half way up, constricted considerably above oral margin where the short decussate vibrissæ are inserted; sides of face very wide, cheeks nearly two-thirds eye-height. Eyes bare. Antennæ inserted above median line of the eyes, shorter than face, second joint slightly elongate, third about three times as long as second; arista shorter than third antennal joint, thickened its whole length, bare, 3-jointed, second joint elongate. Proboscis shorter than height of head, rather stout but not fleshy,

labella present; palpi long, rather slender, thickened and curved at tip. Thorax and abdomen not quite as wide as head; scutellum with a strong sub-apical and two strong lateral pairs of macrochaetæ, and a shorter discal pair. Abdomen elongate oval, not flattened, first segment a little shortened; macrochaetæ only marginal. Legs moderately long, femora rather stout and bristly, middle and hind tibiæ spiny; claws and pulvilli of ♀ a little elongate. Wings longer than abdomen, without costal spine, third vein bristly at base; apical cell open, terminating before tip of wing; fourth vein bent at obtuse angle, with a wide, shallow wrinkle at bend appearing as a slight cloud, apical cross-vein a little concave; posterior cross vein curved or sinuate, nearer to bend of fourth. Type *E. gonoides*, n. sp.

This genus differs from *Cnephalia* in the character of the antennæ and arista, and in the facial ridges being bristly. It differs from *Frontina* in having the sides of face bristly, as in *Cnephalia* and *Gonia*.

Eucnephalia gonoides, n. sp. ♀.

Eyes light brown; frontal vitta brownish; sides of front, face and cheeks silvery white; antennæ pale rufous, blackish on apical half more or less of third joint, arista black; proboscis blackish, palpi light rufous; occiput silvery, rather thickly clothed with yellowish gray hair. Thorax silvery pollinose, with five narrow black vittæ, the middle one obsolete in front, the inner pair obsolete a little behind suture, others reaching scutellum, eight rows of macrochaetæ on thorax; scutellum silvery pollinose, blackish at base, testaceous at tip. Abdomen black, reddish on sides of first to third segments, second to fourth segments silvery-white pollinose except the more or less narrow posterior margins; first two segments with one lateral macrochaeta and a median marginal pair; third with a marginal row of ten or twelve; anal segment with a marginal row of eight or ten; venter reddish, with median vitta and anus blackish. Legs black, femora silvery below, tibiæ with spiny macrochaetæ except front ones, claws and pulvilli only a little elongate, pulvilli yellowish fuscous. Wings grayish, tegulæ white, halteres brownish.

Length of body, $9\frac{2}{3}$ mm.; of wing, $7\frac{1}{2}$ mm.

Described from one specimen; Dona Ana County, New Mexico. Apache Canon. Oct. 18.

Rhinophora valida, n. sp. ♂.

Eyes brown; frontal vitta light rufous, front narrowed before ocelli to

about one-fifth width of head ; sides of front, and face silvery-white ; cheeks long and wide, compressed, silvery cinereous behind, pale rufous anteriorly, the under side of head below eyes having a singularly narrowed and elongate apperance in front view ; antennæ and arista black, first two antennal joints and base of third light rufous, arista long pubescent ; proboscis blackish, labella light brownish, palpi pale yellowish rufous ; occiput silvery cinereous. Thorax and scutellum silvery cinereous. Abdomen black, silvery cinereous, hind margins of segments usually blackish ; second segment with a median marginal pair of macrochaetæ, third with a median discal pair, anal segment armed with discal and marginal macrochaetæ and bristles. Legs blackish, front femora slightly silvery cinereous, claws and pulvilli elongate, pulvilli tawny fuscous. Wings grayish-hyaline ; veins blackish, especially cross-veins ; apical cross-vein sinuate, fourth vein bent at an angle with slight stump at bend, hind cross-vein very near to small cross-vein ; tegulæ nearly white, halteres yellow.

Length of body, 4 mm.; of wing, nearly $3\frac{1}{2}$ mm.

Described from one specimen ; Las Cruces, New Mexico. San Andreas Mts. August 21.

Rhinophora mexicana, n. sp., ♂.

Eyes light brown or dark brown ; frontal vitta deep blood-rufous, front about two-ninths width of head behind, wider in front, face widening at about same angle. sides of front, sides of face and facial depression silvery-white, more or less golden on front, the sides of face with some bristles which are longest below, frontal bristles not descending below antennæ, no orbital bristles ; cheeks nearly all comprised in the rufous-brown pregenal area, which is always bare ; antennæ short, pale rufous or yellow, the third joint almost wholly or only at tip blackish, little longer than second ; arista blackish, pubescent ; proboscis brownish, about as long as height of head, palpi small, yellow ; occiput cinereous, somewhat brassy or golden, black-bristly. Thorax and scutellum silvery-gray pollinose, more or less golden, with four darker vittæ interrupted at suture. Abdomen silvery-gray pollinose, more or less distinctly golden, first segment blackish at base ; first segment with a lateral macrochaeta and bristles ; second with a lateral marginal pair, usually a weaker lateral discal one or two, and a median marginal pair ; third with several lateral discal ones and a more or less complete marginal row ; anal segment with a more or less regular discal and marginal row. Legs black, femora more or less

silvery, tibiae bristly, claws and pulvilli elongate, latter smoky tawny. Wings grayish-hyaline, transverse and fourth veins black, other veins more or less tawny; tegulae nearly white, halteres light rufous.

♀.—A specimen which I take to be the female of this species differs in having no golden shade, except very faintly on scutum; the front is hardly one-fourth width of head, and there are no orbital bristles. Macrochaetæ hardly as thick; claws and pulvilli scarcely shorter.

Length of body, ♂, 5 to $6\frac{1}{3}$ mm.; ♀, $6\frac{1}{3}$ mm.; of wing, ♂, $4\frac{1}{2}$ to $5\frac{1}{2}$ mm.; ♀, $5\frac{1}{2}$ mm.

Described from six males and one female; Las Cruces, N. Mex. June 3.

Leucostoma neomexicana, n. sp. ♂.

Eyes brown; frontal vitta velvety black; sides of front, face and cheeks silvery-white, the sides of front shading to dark, epistoma whitish; antennæ and arista black, the third antennal joint no longer than second; proboscis about as long as height of head, blackish, labella brownish; palpi rufous yellow; occiput black, black-hairy. Thorax and scutellum dark bluish-black, shining. Abdomen shining black, last two segments thinly silvery pollinose; first segment with a lateral pair and a median marginal pair of macrochaetæ, other segments with a marginal row; whole abdomen clothed with long macrochaeta-like bristles, making the real macrochaetæ difficult to distinguish, whence the first segment might almost be said to have a marginal row. Legs black, claws and pulvilli elongate, pulvilli silvery. Wings almost hyaline, veins tawny at base; tegulae very large, pure white; halteres blackish.

Length of body, $4\frac{1}{2}$ mm.; of wing, nearly 4 mm.

Described from one specimen; Las Cruces, New Mexico. June 29. This species has the third antennal joint no longer than the second, and is therefore distinct from the species described by v. d. Wulp and doubtfully identified by him as *L. analis*, Meig. (Biol. C.-A. Dipt. II.). His species is perhaps a *Leucostoma*, but the second species, *L. gravipes*, v. d. W., is probably a *Phyto*. *Leucostoma* should be restricted to the smaller species with unusually large tegulae.

Phyto nigricornis, n. sp. ♂.

Eyes very dark brown ; frontal vitta soft black, sides of front shining black, more or less silvery, the front about one-third width of head in middle ; face and cheeks black, thinly silvery pollinose, the cheeks black hairy and with brownish pregenal area ; frontal bristles rather thick and strong, no orbital bristles ; vibrissæ inserted considerably above oral margin, strong, decussate ; antennæ and arista black, second antennal joint brownish, third joint no longer than second ; proboscis black, labella brownish, palpi light rufous ; occiput black, more or less silvery or cinereous, black-hairy. Thorax shining black, very faintly, almost imperceptibly, grayish pollinose ; scutellum black. Abdomen shining black, first segment faintly, others more distinctly, yet thinly, silvery or grayish pollinose ; first segment with two or three lateral macrochaetæ and four median marginal ones, segments two to four with a marginal row ; hypopygium more or less exserted. Legs black, rather stout, claws and pulvilli elongate ; claws blackish, pulvilli smoky-whitish, black at base. Wings grayish-hyaline, slightly tawny at base, veins brownish ; tegulæ whitish, shining, borders narrowly tawny ; halteres rufous, knobs blackish.

♀.—Front about one-third width of head but nearly equilateral, while in the ♂ it is much wider before than at vertex ; two orbital bristles. Abdomen terminated by a forceps, the whole abdomen shining black, not pollinose ; the macrochaetæ weaker, and second segment with same number as first. Claws and pulvilli much shorter, yet somewhat elongate.

Length of body, ♂, 5 to 6 mm. ; ♀, $4\frac{1}{2}$ mm. ; of wing, ♂, 4 to 5 mm. ; ♀, $3\frac{1}{2}$ mm.

Described from seven males and one female ; Las Cruces, New Mexico. One male taken Sept. 20, all the others Oct. 25.

MUSCOPTERYX, n. gen.

Belongs in *Phytoinae*. Head more or less rounded in profile. Front of ♂ averaging about one-third width of head, gradually widening from vertex forward, face widened at same angle ; frontal bristles in single row, descending on sides of face not quite to lower border of eyes, those on front stronger, vertical bristles strongest and, with next pair, directed

backward, others more or less forward, inward, decussate ; two orbital bristles in ♂. Face somewhat receding, epistoma not prominent ; facial depression about one-half width of face, shallow ; facial ridges bare except a bristle or two next vibrissæ, latter rather strong, decussate, inserted at a very slight constriction of the ridges a little above oral margin ; sides of face of moderate width, bare except for frontal bristles ; cheeks hardly one-fourth eye-height, bare except row of bristles on lower margin. Eyes thinly hairy. Antennæ short, hardly two-thirds length of face, second joint slightly elongate, third joint hardly as long as second, rounded ; arista thickened on basal third, nearly bare, apparently two-jointed, basal joint short. Proboscis short, about two-thirds height of head, fleshy, part below geniculation hardly longer than that above, labella developed ; palpi small, very slender, filiform, bristly. Thorax about as wide as head ; scutellum with an apical decussate, and two lateral pairs of macrochaetæ. Abdomen narrower than thorax, ovoid-conical, first segment not shortened ; macrochaetæ marginal and discal, strong ; hypopygium concealed. Legs moderately long and stout, bristly ; claws and pulvilli of ♂ quite elongate. Wings longer than abdomen, with costal spine, third vein bristly at base ; apical cell closed in border very little before tip of wing, fourth vein bent at angle without stump or wrinkle, apical cross-vein a little concave ; hind cross-vein sinuate, nearer to bend of fourth vein. Type *M. chaetosula*, n. sp.

Muscopteryx chaetosula, n. sp., ♂.

Eyes dark brown, blackish ; frontal vitta brownish, silvery ; sides of front, face and cheeks silvery-white, the pregenal area extensive, brownish, silvery ; antennæ and arista blackish, first two antennal joints rufous ; proboscis dark brownish, palpi pale tawny ; occiput silvery, gray-hairy below. Thorax densely silvery-gray pollinose, with five rather indistinct cinereous vittæ, the middle one obsolete before suture, the outer ones interrupted at suture ; scutellum, humeri and pleuræ silvery. Abdomen almost entirely silvery pollinose, the hind margins of segments darker, slightly brassy in some lights ; first segment with a strong lateral macrochaeta, besides other bristles and a median marginal pair ; second with a lateral pair, a median marginal, and a weaker median discal pair ; third with a weak median discal pair, and a marginal row of very strong macrochaetæ ; anal segment with more or less irregularly placed marginal

and discal ones. Legs black, femora silvery on outside, pulvilli whitish. Wings grayish-hyaline, tegulæ nearly white, halteres pale rufous.

Length of body, 6 mm.; of wing, $4\frac{1}{2}$ mm.

Described from one specimen; Chihuahua, Mexico. Mex. Cen. R.R., August 4.

Vanderwulpia sequens, n. sp. ♂.

Eyes brown; frontal vitta dark brown; sides of front, face and cheeks silvery-white, the sides of front slightly brassy next vitta; two orbital bristles; antennæ blackish, slightly rufous at end of second joint, arista blackish; proboscis black, palpi black, rufous at extreme tip; occiput silvery-white, brassy above, gray-hairy. Thorax silvery-white, with two heavy deep black vittæ reaching scutellum, portion between vittæ more or less brassy; scutellum silvery, edged with black on sides continuing on sides of thorax posteriorly. Abdomen shining black; bases of segments two to four narrowly silvery-white pollinose, faintly so on basal half, first segment faintly silvery, anteriorly on sides and beneath; first two segments with one lateral macrochaeta and a median marginal pair; third with eight marginal, and anal with about as many marginal, which are not so strong. Legs black, femora silvery beneath, especially front pair; front coxæ long, silvery; middle and hind claws and pulvilli a little elongate, anterior ones minute. Wings golden fuscous on costal portions, grayish internally, more smoky towards apex, apical and hind cross-veins smoky; fourth vein with decided wrinkle at bend, apical cell extremely short petiolate; tegulæ white; halteres black, rufous at base.

Length of body, $8\frac{1}{2}$ mm.; of wing, $6\frac{1}{2}$ mm.

Described from one specimen; Las Cruces, New Mexico. August 26. This species differs from the type species of the genus *V. atrophopodoides*, Twins., in having the apical cell not moderately long petiolate, but closed immediately before margin. The arista is long pubescent, and this genus belongs in the *Dexiidae*; although the genus *Atrophopoda*, so closely allied to it in the structure of the front feet, belongs by the character of the arista in the *Tachinidae* s. str.